ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)	
	)	
Reorganization and Revision of	)	WT Docket No. 94-148
Parts 1, 2, 21, and 94 of the	)	
Rules To Establish a New Part	)	
101 Governing Terrestrial Microwave	)	
Fixed Radio Services	)	

COMMENTS OF MOTOROLA

Motorola, by its attorneys, hereby files its comments in response to the above-captioned *Notice*. Motorola commends the Commission for its ambitious undertaking to consolidate, reorganize, and simplify the rules governing the operation of terrestrial microwave services. In what Motorola believes is an inadvertent oversight, however, the Commission's proposed rules do not contain a referenced section relating to the authorization process for low power Digital Electronic Messaging Service systems previously codified at Section 94.88 of the Commission's Rules. As discussed below, Motorola believes that the policies embodied within that section have significant public benefits and should be retained and recodified in a new Section 101.606.

Respectfully submitted,

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In this *Notice*,[1] the Commission proposes the consolidation, reorganization and simplification of the regulations governing terrestrial microwave fixed radio services for both common carrier and private users. Although the task of melding both Parts 21 and 94 into a single Part 101 is daunting in scope, this effort will provide many important benefits for the FCC's staff, carriers, users, and the public generally and is consistent with the tenets of regulatory parity that have been adopted for common carrier and private radio land mobile operations. Motorola accordingly supports this timely and needed effort and commends the Commission on the comprehensive nature of proposed rules tendered for consideration.

In the proposed version of the rules, however, Motorola believes the Commission may have inadvertently deleted Section 94.88, a special provision streamlining the authorization process for operating low power digital termination service stations in the 18 GHz band.[2] Although Section 94.88 is listed in the cross-reference section of the *Notice* as being included as Section 101.605(l)(3), the referenced new rule section simply does not exist.[3] As discussed below, Motorola believes that there are substantial public benefits to retaining a low power DEMS option, and accordingly requests the Commission to restore the text of Section 94.88 as a new subsection 101.605(m)(9), with appropriate modifications.

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[1] Reorganization and Revision of Parts 1, 2, 21, and 94 of the Rules To Establish a New Part 101 Governing Terrestrial Microwave Fixed Radio Services, WT Docket No. 94-148 (rel. Dec. 28, 1994) ["*Notice*"].

[2] Current Rule 94.88 provides for low power Digital Termination Service ("DTS") stations. The *Notice* proposes to rename DTS as "Digital Electronic Message Service" or "DEMS."

[3] Indeed, Section 101.605(l) has no subsections and, in any event, relates to operations in the 12.2-12.7 GHz band. While Section 101.605(m) does deal with 18 GHz operations and has numerous subsections, none contain any text similar to Section 94.88 of the Commission's rules.

Section 94.88 was added to the Commission's rules in 1990[4] to "provide licensees the flexibility to use multiple low power point-to-multipoint transmitters within a given area instead of a single high-power transmitter."[5] The Commission noted that systems of low power transmitters "would not have any more preclusive effect on other co-channel 18 GHz operations" and that requiring licensees to file for each low power nodal station would be "unnecessarily burdensome for both the applicant and the Commission."[6] The Commission therefore concluded that "it is in the public interest to minimize licensing burdens for licensees that wish to operate multiple low-power systems" and adopted a "point-radius" scheme whereby applicants specify a center coordinate and are allowed to freely deploy low power stations within a radius of 28 kilometers.[7] Low power stations were limited to 1 Watt peak EIRP and 100 milliWatt transmitter output power, but were offered the flexibility to utilize omnidirectional antennas and a less stringent emission mask.

Motorola also observes that low power DEMS operations are extremely efficient and fully consistent with the fundamental character of the DEMS service, since they involve two-way, digital service designed for local distribution of message traffic. Under the circumstances, Motorola believes the Commission should correct its apparently inadvertent deletion of the low power DEMS rules, restore Section 94.88 in the new Part 101 and

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[4] *See* Amendment of Part 90 of the Rules Regarding Point-to-Multipoint Use of the 2.5, 10.6, and 18 GHz Bands by Private Operational Fixed Microwave Licensees, 5 FCC Rcd 1220 (1990).

[5] *Id.* at ¶26.

[6] *Id.*

[7] *Id.* at ¶27.

continue to streamline the authorization of low power DEMS systems. These systems are highly efficient and provide an alternative technology that is fully compatible with the DEMS allocations. Accordingly, Motorola believes its request is warranted and in the public interest and that the modifications suggested in Appendix A should be added to Part 101.

APPENDIX A
Proposed New Part 101 Modifications

Add a new subsection (iii) to Section 101.605(m)(8) as follows:

(iii) Further rules governing the operation of low power point-to-multipoint operations in the frequencies listed in this subpart are contained at Section 101.606.

Add a new section 101.606 as follows:

§101.606 Low Power DEMS Operation

Notwithstanding the other provisions in this Rule part, licensees of the five point-to-multipoint channel pairs listed in §101.605(m)(8) may operate multiple low power transmitting devices within a defined service area. The service area will be a 29 kilometer omnidirectional radius originating from specified center reference coordinates. The specified center coordinates must be no closer than 56 kilometers from any co-channel nodal station or the specified center coordinates of another co-channel system. Applicants/licensees do not need to specify the location of each individual transmitting device operating within their defined service areas. Such operations are subject to the following requirements on the low power transmitting devices:

(a) Power must not exceed one watt EIRP and 100 milliwatts transmitter output power.

(b) A frequency tolerance of 0.001% must be maintained.

(c) The mean power of emissions shall be attenuated in accordance with the following schedule:

(1) In any 4 kHz band, the center frequency of which is removed from the center frequency of the assigned channel by more than 50 percent of the channel bandwidth and is within the bands 18,820-18,870 MHz or 19,160-19,210 MHz:

$$A = 35 + 0.003 (F-0.5B) \text{ dB}$$

or,

80 dB (whichever is the lesser attenuation).

Where

A = Attenuation (in decibels) below output power level contained within the channel for a given polarization.

B = Bandwidth of channel in kHz.

F = Absolute value of the difference between the center frequency of the 4 kHz band measured at the center frequency of the channel in kHz.

(2) In any 4 kHz band the center frequency of which is outside the bands 18,820-18,870 MHz or 19,160-19,210 MHz:

At least $43 + 10 \log_{10}$ (mean output power in Watts) decibels.